

Translation

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 2002P12810WO | FOR FURTHER ACTION See Form PCT/IPEA/416 | |
| International application No. PCT/DE2003/002583 | International filing date (day/month/year) 31 July 2003 (31.07.2003) | Priority date (day/month/year) 25 September 2002 (25.09.2002) |
| International Patent Classification (IPC) or national classification and IPC H04L 29/12 | | |
| Applicant SIEMENS AKTIENGESELLSCHAFT | | |

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

| | |
|--|--|
| Date of submission of the demand 16 April 2004 (16.04.2004) | Date of completion of this report 30 November 2004 (30.11.2004) |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/DE2003/002583

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1-17 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____ 1-13 _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the drawings:
- pages _____ 1/1 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 03/02583

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|------|-----|
| Novelty (N) | Claims | 1-13 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | 1-13 | YES |
| | Claims | | NO |
| Industrial applicability (IA) | Claims | 1-13 | YES |
| | Claims | | NO |

2. Citations and explanations

1. Reference is made to the following documents:

D1: WO 01 71977 A (BOSCO ERIC; AMERICA ONLINE INC (US); CHILES DAVID CLYDE (US)), 27 September 2001 (2001-09-27)

D2: US 2002/002621 A1 (CHU JIE et al.), 3 January 2002 (2002-01-03)

2. The application presents the following problems of clarity (PCT Article 6) which are relevant to the examination of claim 1:

The feature "extended packet-oriented protocol" is unclear. For the purposes of the examination the term is assumed to refer to a point-to-point communication protocol as per the PPPoE specification (see the description, page 6, lines 32 to 35).

The feature "the address (A1) assigned to the first network element is transmitted to the external device without address translation" is unclear because the address in question is only assigned within the network (LAN) (claim 1, lines 6 to 9). For the purposes of the examination it is assumed (in line with the

description, page 6, lines 29 to 32) that this feature corresponds to the feature in claim 11 according to which "there is no translation of the address assigned to the first network element by the external device for the duration of the transparent connection to suit the external device".

3. In so far as it is clear, the subject matter of **independent claim 1** meets the PCT requirements of novelty, inventive step and industrial applicability (PCT Article 33(2) to (4)).

Document D1, which is considered to be the prior art closest to the subject matter of claim 1, discloses the following (the references in parentheses are to D1):

Method for the transparent exchange of data packets using a packet-oriented network connecting a plurality of network elements and a network node device (page 8, lines 11 to 13), wherein:

- the network elements are assigned unique addresses only within the network (page 20, lines 18 to 20),
- the network node device connects the packet-oriented network to an external device (page 5, line 12 to 15);
- the network node device translates the address assigned within the packet-oriented network into an address that is valid for the external device (page 20, lines 1 to 8, and figure 11),

comprising the following steps:

- establishing a connection between a first network element and the external device (page 17, lines 1 to 7);
- checking message header entries in the data packets exchanged between the external device and the first network element (page 14, lines 5 to 11).

The subject matter of independent claim 1 of the present application differs from the above in that if an entry which is characteristic of an extended packet-oriented protocol is detected, a temporarily transparent connection is established between the first network element and the external device, and the address assigned to the first network element is transmitted to the external device without address translation.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

The problem addressed by the present invention can thus be seen as that of avoiding the conflict of address assignment that arises with address translation for certain applications.

The solution proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) because neither the idea of case-by-case analysis of the protocol as a criterion for the establishment of a transparent connection nor the problem addressed by the present invention is known from or suggested by D1.

Document D2 discloses a solution to the problem addressed by the present invention, in which a PPP connection between a first network and a second network is established with no address translation. The solution described in D2 differs from that of the present application in that there is no case-by-case analysis of the protocol as a criterion for the establishment of such a connection.

The solution proposed in claim 1 therefore involves an inventive step (PCT Article 33(3)).

2.2 Claims 2 to 10 are dependent on claim 1 and therefore also meet the PCT requirements in respect of novelty and inventive step.

3. The subject matter of **independent claim 11** is a repetition of the subject matter of independent claim 1, but directed to a network node element. Claim 11 therefore also meets the PCT requirements of novelty, inventive step and industrial applicability.

3.1 Claims 12 and 13 are dependent on claim 11 and therefore also meet the PCT requirements in respect of novelty and inventive step.